

CLAIMS

1 1. A consumer electronic device, comprising:
2 a network interface for communicating with a remote server; and
3 a media storage for storing program code modules for controlling an operation
4 of the consumer electronic device, the program code modules
5 comprising:
6 an error recovery module for utilizing the network interface to
7 communicate with the remote server and attempt to recover from
8 an error experienced by the consumer electronic device; and
9 a monitoring module for monitoring the operation of the consumer
10 electronic device and determining whether to activate the error
11 recovery module.

1 2. The consumer electronic device of claim 1, wherein the consumer
2 electronic device is a digital video recorder.

1 3. The consumer electronic device of claim 1, wherein the media storage
2 comprises:
3 a system area for storing the monitoring module and a control module for
4 controlling the operation of the consumer electronic device; and
5 an error recovery area for storing the error recovery module.

1 4. The consumer electronic device of claim 3, wherein the error recovery area
2 comprises:
3 data modules for storing backup copies of the monitoring and control
4 modules;
5 wherein the error recovery module is adapted to restore the monitoring and/or
6 control modules from the data modules to the system area.

1 5. The consumer electronic device of claim 1, wherein the error recovery
2 module comprises:
3 a network recovery module for downloading and installing new program code
4 modules from the remote server.

1 6. The consumer electronic device of claim 1, wherein the network interface
2 is adapted to communicate with a diagnostic server and wherein the error recovery
3 module further comprises:
4 a diagnostic module for communicating with the diagnostic server to diagnose
5 the error experienced by the consumer electronic device.

1 7. The consumer electronic device of claim 1, wherein the error recovery
2 module is adapted to:
3 attempt a first-level solution to the error; and
4 responsive to a failure of the first-level solution, attempt a second-level
5 solution to the error.

1 8. The consumer electronic device of claim 7, wherein the first-level solution
2 comprises attempting to recover from the error by performing a minor repair on the
3 program code modules stored by the media storage.

1 9. The consumer electronic device of claim 7, wherein the second-level
2 solution comprises activating a network recovery module for downloading program code
3 modules from a remote server and installing the program code modules on the media
4 storage.

1 10. The consumer electronic device of claim 1, further comprising:
2 a nonvolatile memory for storing the monitoring and/or error recovery
3 modules.

1 11. The consumer electronic device of claim 1, further comprising:
2 a status module for displaying a status of the error recovery module.

1 12. A method of attempting to resolve an error suffered by a consumer
2 electronic device, comprising the steps of:
3 attempting to diagnose the error; and
4 attempting a solution to the diagnosed error suffered by the consumer
5 electronic device, the attempt performed automatically responsive to a
6 detection of the error.

1 13. The method of claim 12, wherein the step of attempting a solution to the
2 diagnosed error comprises the step of:
3 attempting to execute backup copies of program code modules for controlling
4 the consumer electronic device stored on a media storage associated
5 with the device.

1 14. The method of claim 12, wherein the step of attempting a solution to the
2 diagnosed error comprises the step of:
3 downloading program code modules for controlling the consumer electronic
4 device from a remote server in communication with the consumer
5 electronic device.

1 15. The method of claim 12, wherein the step of attempting a solution to the
2 diagnosed error comprises the steps of:
3 attempting a first-level solution to the error; and
4 responsive to a failure of the first-level solution, attempting a second-level
5 solution to the error.

1 16. The method of claim 15, wherein the step of attempting a first-level
2 solution to the error comprises the step of:
3 attempting to recover from the error by performing minor repairs on a media
4 storage associated with the consumer electronic device.

1 17. The method of claim 15, wherein the step of attempting a second-level
2 solution to the error comprises the step of:
3 activating a network recovery module for downloading program code modules
4 from a remote server and installing the program code modules on a
5 media storage associated with the consumer electronic device.

1 18. The method of claim 12, further comprising the step of :
2 displaying a status of the consumer electronic device.

1 19. A computer program product comprising:
2 a computer-usable medium having computer-readable code embodied therein
3 for controlling an operation of a consumer electronic device having a
4 network interface, the computer program product comprising:
5 an error recovery module for utilizing the network interface to
6 communicate with a remote server and attempt to recover from an
7 error experienced by the consumer electronic device; and
8 a monitoring module for monitoring the operation of the consumer
9 electronic device and determining whether to activate the error
10 recovery module.

1 20. The computer program product of claim 19, wherein the computer-usable
2 medium comprises:
3 a system area for storing the monitoring module and a control module for
4 controlling the operation of the consumer electronic device; and
5 an error recovery area for storing the error recovery module.

1 21. The computer program product of claim 20, wherein the error recovery
2 area comprises:
3 data modules for storing backup copies of the monitoring and control
4 modules;
5 wherein the error recovery module is adapted to restore the monitoring and/or
6 control modules from the data modules to the system area.

1 22. The computer program product of claim 19, wherein the error recovery
2 module comprises:
3 a network recovery module for downloading and installing new program code
4 modules from the remote server.

1 23. The computer program product of claim 19, wherein the network interface
2 communicates with a diagnostic server and wherein the error recovery module further
3 comprises:
4 a diagnostic module for communicating with the diagnostic server to diagnose
5 the error experienced by the consumer electronic device.

1 24. The computer program product of claim 19, wherein the error recovery
2 module is adapted to:
3 attempt a first-level solution to the error; and
4 responsive to a failure of the first-level solution, attempt a second-level
5 solution to the error.

1 25. The computer program product of claim 24, wherein the first-level
2 solution comprises attempting to recover from the error by performing minor repairs on
3 the computer-readable code for controlling the operation of the consumer electronic
4 device.

1 26. The computer program product of claim 24, wherein the second-level
2 solution comprises activating a network recovery module for downloading program code
3 modules from a remote server and installing the program code modules on the computer-
4 usable medium.

1 27. The computer program product of claim 19, wherein the computer-usable
2 medium further comprises:
3 a nonvolatile memory for storing at least a portion of the monitoring and/or
4 error recovery modules.

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